



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,499	07/03/2003	Hugh Herr		4424

7590

01/09/2006

Hugh Herr
51 Montrose St.
Somerville, MA 02143

EXAMINER

BLANCO, JAVIER G

ART UNIT	PAPER NUMBER
----------	--------------

3738

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,499

Applicant(s)

HERR, HUGH

Examiner

Javier G. Blanco

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 2,4-8,10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the species embodied in Figure 7 (one of the bi-articular embodiments) in the reply filed on October 25, 2005 is acknowledged. The traversal is on the ground(s) that independent claims 1 and 9 are generic. According to the Applicant's response, independent claim 1 has been amended and should be generic. According to the Applicant's response, claims 1, 3, and 9 read on the elected species.
2. Claims 2, 4-8, 10, and 11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 25, 2005.

Response to Amendment

3. Applicant's amendment of claims 1 and 7 in the reply filed on October 25, 2005 is acknowledged.

Oath/Declaration

4. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not include the notary's signature, or the notary's signature is in the wrong place.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

a. Therefore, the “stiffness controller” (see independent claim 1, line 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

b. Therefore, the “spring-rate controller” (see independent claim 9, line 3) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- a. A “stiffness controller” (see independent claim 1, line 5).
- b. A “spring-rate controller” (see independent claim 9, line 3).

Claim Objections

7. Claim 9 is objected to because of the following informality: please substitute “the spring rate a” (see line 2) with --the spring rate of a--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1, 3, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding independent claim 1, the limitation “a controllable-stiffness spring element” is indefinite as to the scope of the invention.

According to the specification (see paragraphs 0018-0024, 0028, 0065, and 0066), the elected species (embodied in Figure 7) is an “energy transfer embodiment”, particularly a “bi-articular” embodiment. The embodiments of Figures 4-6 and 9-16 are “variable-stiffness

Art Unit: 3738

embodiments” (having variable/controllable/adjustable spring-rate). It seems, from the claim language of claims 1 and 3 that said subject matter is drawn to a “variable-stiffness embodiment”, rather than an “energy transfer embodiment”. The Examiner will interpret the (broad) claimed subject matter of claims 1 and 3 as best understood, meaning that any reference showing some sort of controller (well known in the art) and a spring (which will inherently have a spring rate and/or damping rate) will read on said claim language.

b. Regarding independent claim 9, the limitation “a controllable-spring-rate spring” is indefinite as to the scope of the invention.

According to the specification (see paragraphs 0018-0024, 0028, 0065, and 0066), the elected species (embodied in Figure 7) is an “energy transfer embodiment”, particularly a “bi-articular” embodiment. The embodiments of Figures 4-6 and 9-16 are “variable-stiffness embodiments” (having variable/controllable/adjustable spring-rate). It seems, from the claim language of claim 9 that said subject matter is drawn to a “variable-stiffness embodiment”, rather than an “energy transfer embodiment”. The Examiner will interpret the (broad) claimed subject matter of claim 9 as best understood, meaning that any reference showing some sort of controller (well known in the art) and a spring (which will inherently have a spring rate and/or damping rate) will read on said claim language.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3738

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 3, and 9 are rejected, as best understood, under 35 U.S.C. 102(b) as being clearly anticipated by Petrofsky et al. (US 5,888,212).

Referring to Figures 1-24B, Petrofsky et al. disclose a variable impedance prosthesis/orthosis comprising a proximal end, a distal end, a stiffness/spring-rate controller (see Abstract), and a controllable-stiffness spring (see column 5, lines 1-23; column 8, lines 41-51) with a variable/adjustable/controllable mechanical advantage (e.g., spring rate, damping rate, etc.). See, for example, column 9, lines 21-57. The method of varying the stiffness/spring-rate with a controller as a function of a repeated cycle of use of said prosthesis or orthosis is disclosed throughout the document.

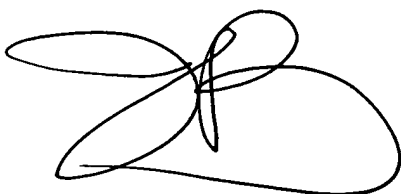
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javier G. Blanco whose telephone number is 703-605-4259. The examiner can normally be reached on M-F (9:00 a.m.-6:00 p.m.), first Friday of the bi-week off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

JGB



December 30, 2005



David H. Willse
Primary Examiner